IN THE DRAWINGS:

No amendments.

Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-25, were rejected under 35 U.S.C. §103(a) as being unpatentable over the Armstrong et al. U.S. patent no. 5,958,106 in view of the Keller et al. U.S. patent 2,846,303. These rejections are traversed.

The applicants have amended claims 1 and 16 of the present application, not in response to the examiner's rejections which are untenable, but to make more clear the claimed invention. No equivalents have been surrendered by these amendments since they are not in response to the examiner's rejection.

The examiner correctly notes that the factual inquiries set forth in Graham **v**. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966) must be followed but while setting forth the four factual determinations required by Graham the examiner has failed to make any of the four factual inquiries required.

As stated in MPEP § 2141.02 (VI) the prior art must be considered in its entirety including the disclosures that teach away from the reference, citing W.L. Gore and Associates, Inc. v Garlock, Inc. 721 F2d 540, 220 USPQ 303 (Fed. Cir. 1983), Cert. denied, 469 US 851 (1984). Moreover, a statement by the examiner that the modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art", even if all aspects of the claimed invention were shown in the references (not the case here), is insufficient to establish a *prima facie* of obviousness, see MPEP § 2143.01 (IV) citing ex parte Levengood,

28 USPQ 2d 1300 (Bd. Pat. A pp. & Int. 1993).

In the present case the examiner has failed to appreciate that neither the Armstrong et al. '106 patent or the Keller et al. '303 patent remotely suggests the method of claims 1-25.

More particularly, the examiner's citation to various aspects of the Armstrong et al. '106 patent and the Keller et al. '303 patent do not substantiate the examiner's conclusion that either reference alone or in combination teach the steps set forth in the claims.

The examiner correctly notes that each of the Armstrong et al. '106 reference and the Keller et al. '303 reference involves a production of titanium or its alloys and each involves the well known reaction of the reduction of titanium tetrachloride with a reducing metal such as sodium. The examiner however fails in his analysis of what the Armstrong et al. patent shows or suggests and similarly fails in his suggestion of what the Keller et al. '303 patent shows or suggests with respect to the claims at issue. After referring to the Armstrong et al. '106 patent and noting that sodium is recycled in the Armstrong patent the examiner fails to note that the recycling of sodium in the Armstrong et al. '106 patent is limited to recycle of sodium to the inlet of the reaction chamber to make up for sodium lost in the reaction. There is no suggestion whatsoever in the Armstrong et al. '106 patent that sodium should be recycled for any other purpose except to be used as makeup to the inlet to the reaction chamber. The examiner's statement on page four, second full paragraph that "Armstrong does not explicitly teach the process steps of claim 1 in decanting the liquid metal." is accurate but misses the entire point of the invention.

The invention is directed to the concentration of the reaction product metal particles from a slurry of reaction product metal particles, reductive metal and the reaction product salt by using either a liquid reductive metal or a liquid salt at a temperature in excess of the melting point of the salt in order to resolve the salt from the slurry. No mention of this critical aspect of the invention is made in the Armstrong et a. '106 patent, so that the examiner's remarks in the second full paragraph on page 4 while true misses the whole point of the invention.

It is true that Keller teaches that column 4, line 75 to column 5, line 9, (not at column 3 to column 4 as indicated by the examiner) that excess of liquid sodium may be removed by decanting but that does not relate to the subject matter of the present invention. The combination of the cited portion of the Keller et al. '303 patent with the Armstrong et al. '106 patent does nothing to provide the missing part of the invention which is disclosed in neither the Armstrong et al. '106 patent nor the Keller et al. '303 patent.

The applicants do not claim to be the first to invent the reduction of titanium tetrachloride with alkaline earth or alkali metal, those processes have been well known for a long time. That the Armstrong et al. '106 patent relates to a very different method of producing titanium or its alloys than the Keller et al. '303 patent is shown from the Keller et al. '303 disclosure which requires a very slow reaction and the reducing metal is present in small amounts so that the average valences of the titanium chlorides goes from 3 to 0 in a time period of approximately 3 to 5 hours. This is entirely opposite to the Armstrong et al. '106 patent in which the reaction is instantaneous and a large excess of the reducing metal is used to control the temperature of the exothermic reaction between the reducing metal and the titanium

tetrachloride. The two patents while relating to the same general subject matter, that is the production of titanium or its alloys, do so by vastly different methods and the disclosures of the two patents cannot be combined if the entire disclosures are considered as required by W.L. Gore, *supra*, much less in the manner suggested by the examiner. No combination of the references, even if proper, will produce the methods set forth in claims 1-25.

Finally, the examiner's entire rejection is based on a misreading of the patent claims that decantation is the crucial step of the invention but as previously shown that is not true.

All matters having been attended to, it is now suggested that the claims as amended are drawn of patentable subject matter and each of claims 1-25 should be allowed.

March 27, 2008

Respectfully submitted,

OLSON & CEPURITIS, LTD.

By _____
HARRY M. LEVY
Registration No. 24,248

20 North Wacker Drive
36th Floor
Chicago, Illinois 60606
Telephone: (312) 580-1180
Facsimile: (312) 530-1189
e-mail: hlevy@olsonip.com